

OCT 27 2006

Application No.: 09/626,026

Reply to Office Action of: July 27, 2006

CLAIMS

The current claim set of the application is presented below. Indications as to the status of the claims ("original", "currently amended", "cancelled", "new", etc.) appear in parentheses after the claim number. Deletions are identified in bold with double brackets and strikethrough (e.g. ~~[[deletion]]~~) and new text is identified in bold with underlining (e.g. new language).

1-44. (Canceled)

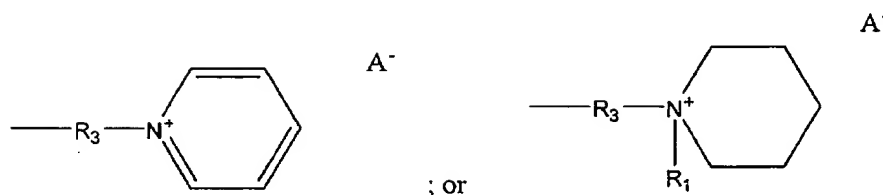
45. (Previously Presented) A polymeric composition, comprising, a polyurethane polymer derived from a polyisocyanate compound and a polyactive hydrogen compound, said polyurethane polymer endcapped at a terminal position with a group including at least one antimicrobial quaternary ammonium group, wherein said polymeric composition is soluble in water.

46-48. (Canceled)

49. (Previously Presented) The polymeric composition of claim 45, wherein the at least one antimicrobial quaternary ammonium group is located on an addition polymerized group and wherein said polyurethane polymer is derived from a monol or polyol vinylic compound and wherein the total equivalents of isocyanate used to form said polyurethane polymer is greater than the equivalents of active hydrogen groups contributed by said polyactive hydrogen compound used to form said polyurethane polymer and said monol or polyol vinylic compound, and the addition polymerization group is formed by reaction of said monol or polyol vinylic compound with a vinylic compound having at least one antimicrobial quaternary ammonium group.

50. (Previously Presented) The polymeric composition of claim 49, wherein the one antimicrobial quaternary ammonium group of said vinylic compound is selected from —  
 $N^+(R_1)_2R_2A^-$ ; — $N^+(R_2)_2R_1A^-$ ;

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wherein each  $R_1$  is independently C 1-C4 alkyl optionally substituted in or on the chain by N, O, and S, benzyl, Cl-C4 substituted benzyl, and Ph-O-CH<sub>2</sub> CH<sub>2</sub>- where Ph=phenyl;  $R_2$  is C8-C26 straight or branched chain alkyl or C8-C30 aralkyl optionally substituted in or on the chain by N, O and S;  $R_3$  is a linkage group which is C8-C26 alkyl optionally substituted in or on the chain by N, O and S, and A is an anionic counter ion and is selected from halogen, alkyl sulfate, carboxylate, sulfonate, sulfate, phosphonate or phosphate.

51. (Currently amended) A method of preventing the growth of microorganisms on ~~[[an]]~~ **a** substrate comprising:  
 coating the substrate with an aqueous dispersion of a biocidal polyurethane polymer  
 comprising a polyurethane composition according to claim 45; **and**  
**curing the polymer.**
52. (Currently amended) An article comprising a substrate coated with the polymeric composition of claim 45.
53. (Currently amended) An article according to claim 52, wherein the substrate is roofing felt, roofing shingle, roofing granules, tile, concrete, metal, polymeric, cloth, fibers or wood, **and wherein the polymeric composition is cured.**
54. (Currently amended) An article according to claim 52, wherein the substrate is a medical article, **and wherein the polymeric composition is cured.**

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55. (Previously presented) The polymeric composition of claim 45 wherein the polyisocyanate compound is a diisocyanate compound and the polyactive hydrogen compound is a diactive hydrogen compound.
56. (Previously presented) The article of claim 52 wherein the substrate is a roofing shingle, roofing granules, tile, concrete, or metal, and wherein the polymeric composition is effective against algae from roofing shingles, and wherein the polymeric composition is cured.
57. (Previously presented) A polymeric composition, comprising a polyurethane polymer derived from a polyisocyanate compound and a polyactive hydrogen compound, said polyurethane polymer comprising at least one pendent antimicrobial quaternary ammonium group, wherein said polymeric composition is soluble in water.